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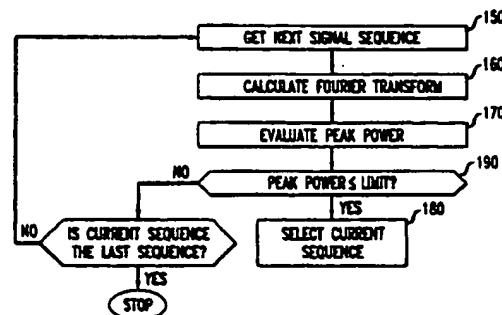
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## (54) Reduction of peak to average power ratio in multicarrier systems

(57) We describe an improved method for decreasing the probability of an unacceptably high peak-to-average power ratio in a signal to be transmitted by a Frequency Division Multiplexing (FDM) system, such as a discrete multitone (DMT) system. The method involves generating at least two alternative signal sequences, computing Fourier transforms of the respective alternative signal sequences, and selecting for transmission one of these sequences, based on the Fourier transform computations. More specifically, the selection of one sequence may be based, e.g., on the determination that the Fourier transform of that sequence has an acceptable peak power. Alternatively, a comparison may be made among the Fourier transforms of the respective signal sequences, and selection made of that sequence whose Fourier transform exhibits the lowest peak power.

FIG. 4



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## EUROPEAN SEARCH REPORT

Application Number  
EP 99 30 1548

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<p>The present search report has been drawn up for all claims</p>			
Place of search	Date of completion of the search	Examiner	
THE HAGUE	13 March 2000	Langinieux, F	
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons A : member of the same patent family, corresponding document	
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## EUROPEAN SEARCH REPORT

Application Number  
EP 99 30 1548

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<b>CATEGORY OF CITED DOCUMENTS</b> X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			
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**ANNEX TO THE EUROPEAN SEARCH REPORT  
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